

Massachusetts; Post - 1996 Rate of Progress Plan for the Springfield (Western Massachusetts) Serious Ozone Nonattainment Area

Federal Register Dates:

September 27, 1999 Notice of Proposed Rulemaking, 64 FR 51943

November 15, 2000 Final Rulemaking, 65 FR 68896

EPA Approval Date: The final rule approving the Post-1996 rate of progress (ROP) emission reduction plan for Springfield (Western Massachusetts) was effective on December 15, 2000.

State Submittal:

The formal SIP revision was submitted by Massachusetts on April 1, 1999, and amended on June 25, 1999, September 9, 1999, and September 14, 2000

Background/Prior Action:

The Springfield (Western Massachusetts) serious ozone nonattainment area consists of the four counties; included are Berkshire, Franklin, Hampden, and Hampshire counties

The post-1996 ROP plan documents how Massachusetts complied with the provisions of section 182 (c)(2)(B) of the Federal Clean Air Act (the Act). This section of the Act requires that serious ozone nonattainment areas develop rate-of-progress (ROP) plans to reduce ozone forming pollutant emissions by 3 percent a year, averaged over each consecutive 3 year period beginning in 1996, until the area reaches its attainment date. The first set of emission reductions are required to occur between November 1996 and November 1999, and are referred to as post-1996 ROP plan reductions, which will yield an overall reduction of nine percent of the combined 1990 VOC and NO_x emission levels.

On September 27, 1999 (64 FR 51944), EPA published a Notice of Proposed Rulemaking (NPR) for the Commonwealth of Massachusetts. The NPR proposed approval of the 15 percent and post-1996 ROP plans. A supplementary proposed rule was published on November 30, 1999 (64 FR 66829) that provided additional information on the automobile inspection and maintenance (I/M) program to be used in Massachusetts and the timing of 15% and 9% ROP plan reductions.

Summary:

Although Massachusetts did not reduce its hydrocarbon emissions by 15 percent by November 15, 1996, the Commonwealth has shown that all of the emission reductions required of 15 percent plans by 1996, and post-1996 plans by 1999, will occur by November 15, 1999.

Target level calculations Springfield, MA nonattainment area	VOC Emissions (tpsd)	NOx Emissions (tpsd)
1990 Base Year Inventory	436	115
Rate-of Progress Inventory (biogenics and non-reactives subtracted)	153	115
non-creditable reductions ¹	13	10
Calculate required reduction (State will use 2% VOC and 7% NOx for 1996 to 1999 ROP)	2%*153=3	7%*115=8
Calculate Total Expected Reductions (sum of FMVCP and required 9% reduction.) ²	6	18
Set Target Level for 1999	115	97
Incorporate growth and controls to determine 1999 emission levels ³	115	97

¹ States cannot take credit for reductions achieved by Federal Motor Vehicle Control Program (FMVCP) measures (new car emission standards) promulgated prior to 1990 or for reductions resulting from requirements to lower the Reid Vapor Pressure (RVP) of gasoline promulgated prior to 1990.

² For VOC, 10 of the 13 tpsd non-creditable FMVCP reduction occurs between 1990 and 1996, and is accounted for in the determination of the State's 1996 emission target level.

³ The 1999 VOC target level is obtained by subtracting FMVCP reductions that accrue between 1996 to 1999 (3 tpsd) and the reductions need for ROP (also 3 tpsd), from the 1996 target.

Transportation Conformity Budgets:

A control strategy SIP is required to establish a motor vehicle emission budget which places a cap on emissions that cannot be exceeded by predicted highway and transit vehicle emissions. The 1999 on-road mobile emissions provided in the Post-1996 ROP plan SIP submittal for the Springfield (Western Massachusetts) area are 28.417 tons/day volatile organic compounds (VOC), and 52.042 tons/day of nitrogen oxides (NOx).

On October 1, 1998, Massachusetts submitted an ozone attainment demonstration SIP revision to EPA which established 2003 motor vehicle emission budgets of 23.770 tons per summer day of VOC and 49.110 tons per summer day of NOx for the Springfield (Western Massachusetts) area. By letter dated February 19, 1999, EPA informed Massachusetts that the motor vehicle budgets contained within the State's ozone attainment demonstration were adequate for conformity purposes. On June 10, 1999 (64 FR 31217), EPA notified the public that we had found the 2003 VOC and NO_x motor vehicle emission budgets adequate for transportation conformity purposes. EPA believes that the VOC and NO_x budgets established by the Springfield (Western Massachusetts) ozone attainment demonstration are currently the controlling budgets for conformity determinations for 2003 and later years. The budgets in the attainment demonstration specifically address anticipated mobile source emissions in 2003, whereas the Post-1996 ROP plan establishes a budget for 1999. The time period for the budget

in the Post-1996 ROP plans has passed. Additionally, the attainment demonstration establishes a more stringent budget. The 2003 motor vehicle emission budgets established in the area supercede the Post-1996 ROP plan's 1999 motor vehicle emission budgets for analysis years 2003 and later.

Identification by rule name and/or number/citation of the regulations that have been approved by EPA as part of the SIP Plan:

No new state regulations were approved into the Massachusetts State Implementation Plan as part of the Springfield (Western Massachusetts) Post-1996 Rate-of- Progress Plan.

The Post-1996 Rate-of-Progress Plan and Contingency Plan did rely on a number of existing Massachusetts State regulations and emission reduction programs including the following:

- Revisions to Stage II regulations to enhance the compliance assurance
- Motor Vehicle Inspection and Maintenance Program
- Point Source RACT
- Auto Refinishing
- Commercial and Consumer Products
- Architectural Coatings
- On Road Control Measures: Reformulated Gasoline, Tier1, California-Low Emission Vehicle Program,
- Non-Road Control Measures: Reformulated Gasoline, federal non-road engine standards

Contingency Measures:

States with moderate and above ozone nonattainment areas are required to submit sufficient contingency measures so that upon implementation of such measures, additional emission reductions of three percent of the adjusted base year inventory (or a lesser percentage that will make up the identified shortfall) would be achieved in the year after the failure has been identified. States must show that their contingency measures can be implemented with minimal further action on their part and with no additional rulemaking actions such as public hearings or legislative review.

On September 9, 1999, the Commonwealth submitted an amendment to its ROP plan for Western Massachusetts. The amendment included revised 1999 NOx emission estimates that were higher than the Commonwealth's prior submittal, and in essence erased the NOx emission reduction surplus the State had previously forecast. Since Massachusetts had intended to use the surplus NOx reductions to meet its contingency obligation, the September 9, 1999 amended submittal from Massachusetts no longer contains a contingency plan. The Commonwealth's September 9, 1999 submittal contains a commitment to submit a revised contingency plan shortly, and indicates that phase II of the reformulated gasoline program is likely to be cited as the control measure that will achieve the necessary reductions. EPA agrees that this control measure is likely to provide the necessary reductions, and will take action on the Commonwealth's contingency plan after it is revised and submitted as a SIP revision.

Other Commitments:

The Commonwealth's September 9, 1999 submittal contains a commitment to submit a revised contingency plan shortly, and indicates that phase II of the reformulated gasoline program is likely to be cited as the control measure that will achieve the necessary reductions.

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